What is claimed is:

1. A method of crosslinking a polysaccharide comprising the steps of:

(a) providing a metal coordinating group having a reactive site,

(b) derivatizing a polysaccharide with the metal coordinating group to produce a derivatized polysaccharide having bidentate ligands, and

(c) crosslinking the derivatized polysaccharide having bidentate ligands with a metal ion to form a metal ligand coordination complex.

2. The method of claim 1 wherein the polysaccharide comprises guar, xanthan, locust bean gum, hydroxy ethyl and hydroxy propyl derivatives of gums, or hydroxyethylcellulose.

3. The method of claim 1 wherein the derivatized polysaccharide having bidentate ligands is crosslinked with a crosslinking agent comprising a compound chosen from the group consisting of copper, nickel, iron, ruthenium, palladium, platinum, iridium and cobalt.

4. The method of claim 1 wherein the bidentate ligands comprise ethylenediamine, acetylacetonate ions, dithiocarbamate, 2,2'-bipyridine, 1,10-phenanthroline, or 8-hydroxyquinolinato.

5. The method of claim 3 wherein the crosslinking agent is present in an amount up to about 500 moles of crosslinking agent per mole of polysaccharide.

6. The method of claim 3 wherein step (c) occurs within a wellbore in a subterranean formation.

7. The method of claim 3 wherein the polysaccharide comprises guar and the crosslinking agent is a derivative of iron or ruthenium.

8. A method of fracturing a subterranean formation comprising the steps of:

providing a treatment fluid comprising proppant and a crosslinked polysaccharide made by a method comprising the steps of:

providing a metal coordinating group having a reactive site,

derivatizing a polysaccharide with the metal coordinating group to produce a derivatized polysaccharide having bidentate ligands, and

crosslinking the derivatized polysaccharide having bidentate ligands with a metal ion to form a metal ion crosslinked polysaccharide; and

placing the treatment fluid into a wellbore within the subterranean formation at a chosen pressure to create or enhance a fracture in the subterranean formation.

9. The method of claim 8 wherein the polysaccharide comprises guar, xanthan, locust bean gum, hydroxyethyl and hydroxypropyl derivatives of gums, or hydroxyethylcellulose.

10. The method of claim 8 wherein the derivatized polysaccharide having bidentate ligands is crosslinked with a crosslinking agent comprising a compound chosen from the group consisting of copper, nickel, iron, ruthenium, palladium, platinum, iridium and cobalt.

11. The method of claim 8 wherein the bidentate ligands comprise ethylenediamine, acetylacetonate ions, dithiocarbamate, 2,2'-bipyridine, 1,10-phenanthroline, or 8-hydroxyquinolinato.

12. The method of claim 10 wherein the crosslinking agent is present in an amount up to about 500 moles of crosslinking agent per mole of polysaccharide.

13. The method of claim 10 wherein the crosslinking of the derivatized polysaccharide having bidentate ligands to form a metal ion crosslinked polysaccharide occurs within the wellbore.

14. The method of claim 10 wherein the polysaccharide comprises guar and the crosslinking agent is a derivative of iron or ruthenium.

15. The method of claim 8 wherein the treatment fluid comprises a gel stabilizer, breaker, clay stabilizer, bactericide, or fluid loss additive.

16. A method of providing sand control in a well bore penetrating a subterranean formation comprising the steps of:

(a) providing a treatment fluid comprising gravel and a metal ion crosslinked polysaccharide made by a method comprising the steps of:

(i) providing a metal coordinating group having a reactive site,

(ii) derivatizing the polysaccharide with the metal coordinating group to produce a derivatized polysaccharide having bidentate ligands, and

(iii) crosslinking the derivatized polysaccharide having bidentate ligands with a metal ion to form a metal ion crosslinked polysaccharide; and

(b) placing the treatment fluid into an annulus between the well bore and the neighboring subterranean formation so as to form a gravel pack in the annulus.

17. The method of claim 16 wherein the polysaccharide comprises guar, xanthan, locust bean gum, hydroxy ethyl and hydroxy propyl derivatives of gums, or hydroxyethylcellulose.

18. The method of claim 16 wherein the derivatized polysaccharide having bidentate ligands is crosslinked with a crosslinking agent comprising a compound chosen from the group consisting of copper, nickel, iron, ruthenium, palladium, platinum, iridium and cobalt.

19. The method of claim 16 wherein the bidentate ligands comprise ethylenediamine, acetylacetonate ions, dithiocarbamate, 2,2'-bipyridine, 1,10-phenanthroline, or 8-hydroxyquinolinato.

20. The method of claim 18 wherein the crosslinking agent is present in an amount up to about 500 moles of crosslinking agent per mole of polysaccharide.

21. The method of claim 16 wherein the crosslinking of the derivatized polysaccharide having bidentate ligands to form a metal ion crosslinked polysaccharide occurs within the wellbore.

22. The method of claim 18 wherein the polysaccharide comprises guar and the crosslinking agent is a derivative of iron or ruthenium.

23. The method of claim 17 wherein the treatment fluid comprises a gel stabilizer, breaker, clay stabilizer, bactericide, or fluid loss additive.

24. A method of producing hydrocarbons from a subterranean formation comprising introducing to a well bore penetrating the subterranean formation a treatment fluid comprising a metal ion crosslinked polysaccharide made by a method comprising the steps of:

(a) providing a metal coordinating group having a reactive site on the metal coordinating group,

(b) derivatizing a polysaccharide with the metal coordinating group to produce a derivatized polysaccharide having bidentate ligands, and

(c) crosslinking the derivatized polysaccharide having bidentate ligands to form a metal ion crosslinked polysaccharide.

25. The method of claim 24 wherein the polysaccharide comprises guar, xanthan, locust bean gum, hydroxy ethyl and hydroxy propyl derivatives of gums, or hydroxyethylcellulose.

26. The method of claim 24 wherein the derivatized polysaccharide having bidentate ligands is crosslinked with a crosslinking agent comprising a compound chosen from the group consisting of copper, nickel, iron, ruthenium, palladium, platinum, iridium and cobalt.

27. The method of claim 24 wherein the bidentate ligands comprise ethylenediamine, acetylacetonate ions, dithiocarbamate, 2,2'-bipyridine, 1,10-phenanthroline, or 8-hydroxyquinolinato.

28. The method of claim 26 wherein the crosslinking agent is present in an amount up to about 500 moles of crosslinking agent per mole of polysaccharide.

29. The method of claim 24 wherein the crosslinking of the derivatized polysaccharide having bidentate ligands to form a metal ion crosslinked polysaccharide occurs within the wellbore.

30. The method of claim 26 wherein the polysaccharide comprises guar and the crosslinking agent is a derivative of iron or ruthenium.

31. The method of claim 25 wherein the treatment fluid comprises a gel stabilizer, breaker, clay stabilizer, bactericide, or fluid loss additive.

32. A metal ion crosslinked polysaccharide produced by a method comprising the steps of:

(a) providing a metal coordinating group having a reactive site on the metal coordinating group,

(b) derivatizing a polysaccharide with the metal coordinating group to produce a derivatized polysaccharide having bidentate ligands, and

(c) crosslinking the derivatized polysaccharide having bidentate ligands to form a metal ion crosslinked polysaccharide.